

## 3-Paddle Fiber Polarization Controller

Opneti's mechanical polarization controller's unique user-friendly design utilizes stress-induced birefringence, can be equal to  $\lambda/2$  and  $\lambda/4$  optical wave plate. The state-of-polarization (SOP) provided by adjusting the angles of paddles can achieve complete coverage of the Poincare sphere. Flexible structure design is easy to remove to accept different fiber with different wavelength.

### Features

- All Fiber Structure, Simple Operation, High Reliability
- Based on Theory of Stress-Induced Birefringence
- Equal to  $\lambda/2$  and  $\lambda/4$  Optical Wave Plate
- Complete Coverage of the Poincare Sphere
- Low Loss, Wide Operating Wavelength
- Well-Made, Competitive Price
- Easy Top-Down Fiber Loading with Paddles

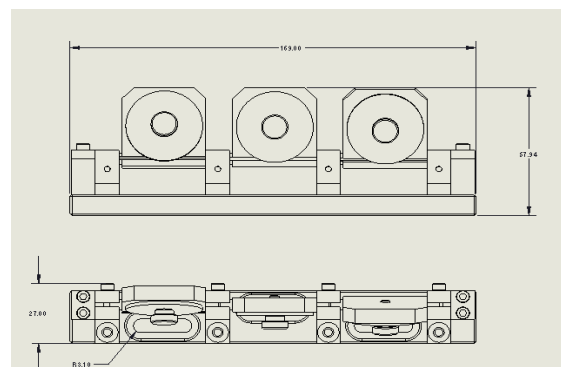
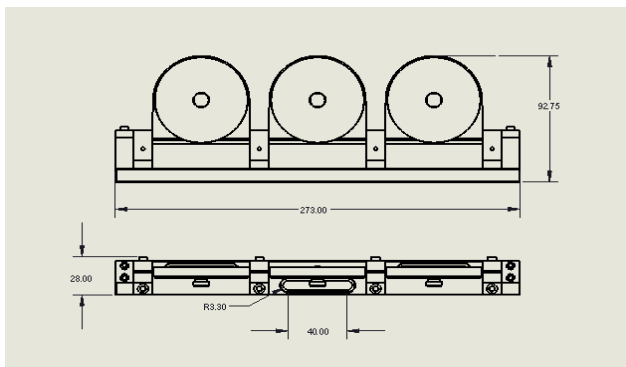
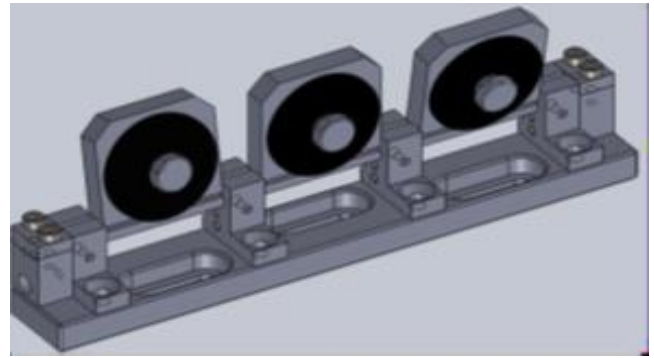
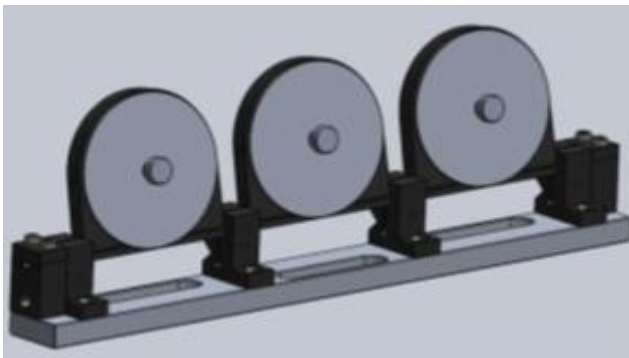
### Applications

- Coherent Optical Fiber Communication Systems
- Fiber-Optic Gyroscope
- Coherent Detection
- Optical Fiber Transmission System
- Optical Fiber Sensor
- PDL Measurement

### Specifications

| Parameters                      | Unit               | Values         |           |          |       |
|---------------------------------|--------------------|----------------|-----------|----------|-------|
| Operating Wavelength            | nm                 | 1260~1625      | 1064, 980 | 850, 780 | 518   |
| Fiber Type                      | nm                 | SMF-28e Ultra  | HI1060    | HI780    | HP460 |
| Number of Paddles               | pc                 | 3              |           |          |       |
| Loop Diameter for Standard Size | mm                 | 56             |           |          |       |
| Loop Diameter for Compact Size  | mm                 | 27             |           |          |       |
| Paddle Rotation                 | Deg                | $\pm 117.5$    |           |          |       |
| Cladding Diameter               | $\mu\text{m}$      | $125 \pm 0.7$  |           |          |       |
| Coating Diameter                | $\mu\text{m}$      | $242 \pm 5$    |           |          |       |
| Bend Loss                       | dB                 | $\leq 0.1$     |           |          |       |
| Operating Temperature           | $^{\circ}\text{C}$ | $-10 \sim +75$ |           |          |       |
| Storage Temperature             | $^{\circ}\text{C}$ | $-40 \sim +85$ |           |          |       |

### Package Dimensions



Type S: Standard Size

Type C: Compact Size

Unit: mm

**Ordering Information****POC- ①①①①-②②②-③③-④**

|   |                |   |
|---|----------------|---|
| ① | Wavelength     | 1310; 1550; 1064; 980; 850; 780; 518;                   |
| ② | Pigtail Type   | 250=250μm Bare Fiber; 900=900μm Loose Tube; XX=Specify; |
| ③ | Connector Type | FC=FC/UPC; FA=FC/APC; XX=Specify;                       |
| ④ | Package Type   | S=Standard Size; C=Compact Size;                        |